ABSTRACT OF THE DISCLOSURE

[1154]   In response to executing a single arithmetic instruction, a first number is multiplied by a second number, and a partial result from a previously executed single arithmetic instruction is added implicitly to generate a result that represents the first number multiplied by the second number summed with the partial result from a previously executed single arithmetic instruction. The high order portion of the generated result is saved in an extended carry register as a next partial result for use with execution of a subsequent single arithmetic instruction. Execution of a single arithmetic instruction may instead generate a result that represents the first number multiplied by the second number summed with the partial result and also summed with a third number.